The Management University of Africa

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UNDER GRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

BACHELOR OF MANAGEMENT AND LEADERSHIP

BML 300: COST ACCOUNTING

DATE: 3RD AUGUST 2016

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE is compulsory.**
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

JAIN LTD

Jain Ltd Managing director has been thinking about how to forecast cost of production for the production department which has time and again shown inconsistencies over the last two years. The company is in the process of preparing its budget for the year ending 30th June 2016. The cost accountant has decided that labour expenses should be estimated using an equation of the form, $y = a + bx$, where y is the total expense at an activity level x, a, is the fixed expense and b is the rate of variable cost. Of the two main methods used in cost estimation (regression and high-low) the Managing director is not convinced which of the two should be used by the accountant.

a) Briefly explain to the managing director the meaning of the following cost estimation methods;
   i. High-low method **(4 marks)**
   ii. Simple regression method **(4 marks)**

b) Explain to the managing director the advantages and disadvantages of the high-low method of cost estimation. **(4 marks)**

c) The following information relate to Jain Ltd for the year ended 30th June 2015:

Month	Machine hours	Labour expense	Month	Machine hours	Labour expense
2015	**(Kes '000')**	**(Kes '000')**	**2016**	**(Kes '000')**	**(Kes '000')**
July	**34**	**640**	**January**	**26**	**500**
August	**30**	**620**	**February**	**26**	**500**
September	**34**	**620**	**March**	**31**	**530**
October	**39**	**590**	**April**	**35**	**550**
November	**42**	**500**	**May**	**43**	**580**
December	**32**	**530**	**June**	**48**	**680**

The annual total and monthly average figures for the year ended 30th June 2015 were as follows:

	Machine hours (Kes '000')	Labour expense (Kes '000')
Annual total	420	6,840
Monthly average	35	570

Required:

(i) Using the high-low method, estimate and interpret the fixed and variable cost elements of the labour expense. **(6 marks)**

(ii) Using the results in (i) above, predict the labour expense for November 2016 if experience indicates that 41,000 machine hours will be used. **(2 marks)**

(iii) By using simple linear regression analysis it is established that the co-efficient of determination arising from the data is approximately 0.25. Interpret the significance of this fact. **(5 marks)**

QUESTION TWO

(a) Explain the advantages of standard costing **(5 marks)**

(b) Explain the assumptions behind the determination of economic order quantity (EOQ). **(4 marks)**

(c) The following information relates to material component "Zee" used in manufacture of fortified foods

Consumption:

Annual	360,000 units
Maximum	1,200 units/day
Minimum	800 units/day
Normal	900 units/day
Re-order period	12 – 24 days
Re-order quantity	32,000 units

Required:

(i) Re-order level **(2 marks)**

(ii) Minimum stock level **(2 marks)**

(iii) Maximum stock level **(2 marks)**

QUESTION THREE

(a) State and briefly explain any five assumptions underlying the break-even analysis **(5 marks)**

(b) Consider a budget to produce 2,750 pieces of product Y in 22,000 hours, the fixed overheads is estimated as Kes 88,000 and variable overheads as Kes 55,000. The company's production during the period of the budget was 2,700 articles in 21,500 working hours with fixed overheads costing Kes 90,000 and variable overheads Kes 58,000.

Required:

Calculate the following variances:

(i) Overhead variance **(2 marks)**

(ii) Fixed production overhead variance. **(2 marks)**

(iii) Variable production overhead variance **(2 marks)**

(iv) Fixed production overhead expenditure variance. **(2 marks)**

(v) Fixed production overhead volume variance. **(2 marks)**

QUESTION FOUR

(a) Explain the meaning and significance of the following terms in the context of the cost-volume –profit analysis:

(i) Relevant range **(2 marks)**

(ii) Margin of safety **(2 marks)**

(iii) Sensitivity analysis **(2 marks)**

(iv) Contribution margin per unit **(2 marks)**

(v) Contribution sales ratio **(2 marks)**

(b) Comment on the reported claim that ABC gives better information as a guide to decision making than the traditional product costing techniques. **(5 marks)**

QUESTION FIVE

Sellfone Enterprises manufactures and sells a product for sale in Nairobi County. The following information regarding the company's operations for the year ended 31st July 2015 was presented to you.

Profit and loss account for the year ended 31st July 2015

	Kes'000	Kes'000
Sales		30,000
Less:		
Production costs		
Direct material	6,500	
Direct labour	5,400	
Production overhead variable	7,000	
Prime costs		18,900
		11,100
Other expenses:		
Selling – Variable	2,600	
- Cost	1,997	
Administration	2,100	6,697
Net profit		4,403

The following changes are expected to occur during the year ending 31st July 2015

(a) Selling price will be adjusted downward by 3% in order to attract more customers.
(b) Material prices will rise by 2% due to inflation.
(c) There will be a reduction in labour cost of 4%.
(d) Production overheads will increase by 3%.
(e) Increase in the efficiency of sales persons will reduce direct selling costs by 5%.

All other factors are expected to remain constant.

Required:

(i) Break-even point in sales value **(4 marks)**
(ii) The margin of safety in sales value **(2 marks)**
(iii) The sales value at which profit of Kes 4.5 million will be achieved **(3 marks)**
(iv) Prepare a summary operating statement that shows the net profit of Kes 4.5 million in (iii) above. **(6 marks)**

QUESTION SIX

(a) Briefly explain the meaning of the following terms as used in standard costing:
- **i)** Basic standards **(2 marks)**
- **ii)** Current standards **(2 marks)**
- iii) Ideal standards **(2 marks)**
- iv) Normal standards **(2 marks)**

(b) Micro-enterprises selling mobile phone batteries basic cost and revenue data relating to the month of June 2015 is given below;

	Per Unit	Percentage
Sales Price	400	100.00
Less Variable Costs	250	62.50
Contribution margin	150	37.50

Fixed costs are Kes 60,000.

In order to increase sales, the management would like to cut the selling price by Kes 50 per battery and increase advertising budget by Kes 30,000 per month. The management feels that if these two steps are taken, unit sales will increase by 50 %. Advise the management whether the above changes should be made? **(7 marks)**